

STATE OF MAINE

DEPARTMENT OF MARINE RESOURCES

IN THE MATTER OF THE APPLICATION OF) WESKEAG RIVER SHELLFISH FARMS, LLC) FOR AN EXPERIMENTAL AQUACULTURE) LEASE LOCATED IN THE UPPER WESKEAG) RIVER, SOUTH THOMASTON, KNOX COUNTY,) MAINE)	FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION
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On October 12, 1999, Weskeag River Shellfish Farms, LLC, of St. George, Maine, applied for an aquaculture lease totaling 9.017 acres in the coastal waters of the State of Maine, located in the upper Weskeag River, South Thomaston, Knox County, Maine. The applicant requested the lease for a term of ten (10) years for the purpose of cultivating American oysters (Crassostrea virginica), hard-shell clams (Mercenaria mercenaria), and soft-shell clams (Mya arenaria), using suspended and bottom culture techniques.

Approval of aquaculture leases is governed by 12 M.R.S.A. §6072. This statute provides that a lease may be granted by the Commissioner of the Department of Marine Resources (DMR) if it is determined that the project will not unreasonably interfere with the ingress and egress of riparian owners, navigation, fishing or other uses of the area; the ability of the site and surrounding areas to support ecologically significant flora and fauna; or the use or enjoyment within 1,000 feet of municipally, state, or federally owned beaches, parks, or docking facilities. The Commissioner must also determine that the applicant has demonstrated that there is an available source of organisms to be cultured for the lease site.

A public hearing on this application was held April 15, 2000, at 7:00 p.m., in Thomaston.

Intervenor status was granted to the Town of South Thomaston represented by First Selectman, Mary Waterman. Intervenor status was also granted to the following riparian landowners: G.R. Gray and Lynne Smith, Charles St. Claire, Jr., Ann Dean, David Cousens, and Ronald Frontin.

Evidence Concerning the Nature and
Impact of the Proposed Lease

The representative of the applicant Weskeag River Shellfish Farms, LLC, Mr. Scott Tilton, provided testimony on the application and his background. He testified that he had 22 years of experience working in fisheries and the shellfish industry. Most recently he participated in a University of Maine aquaculture training program, has been active with the local Georges River Shellfish Committee serving as chair from 1997-1999, holds a commercial shellfish license #316T and currently holds a 1.08-acre¹ limited-purpose shellfish lease, #622-01, in the Weskeag River. Exhibits 1 and 2.

The representative testified that the proposed acreage would include the existing 1.08-acre (40' x 1,178') limited-purpose lease, tract one (1), and a second tract of 6.06 acres (100' x 2,640'). The representative testified that a third tract (3) located south of tract two (2) and near the Route 73 bridge was withdrawn, thus reducing the requested total acreage to 7.14 acres.

The northern 1.08-acre tract 1 would continue to be used as it has been as a limited-purpose lease for the surface culture of shellfish in floating trays. The representative testified that the area of tract 1 would have a maximum of thirteen (13) pairs of 60' long parallel long-lines, which would hold 20 surface trays suspended between the long-lines. Each pair of 60' long-lines would have a 20' space between the ends of each pair to allow for navigation. Each tray is 3' x 4' x 6" and made of vinyl-coated trap wire mesh. The 13 pairs of long-lines would have a maximum capacity of 260 surface trays. Each tray has the capacity to hold two (2) industry standard ADPI bags of varying mesh sizes. Up to 1,000,000 seed shellfish would be raised on tract I.

The southern 1,500' of tract 2 would contain a maximum of forty (40), 100' submerged long-lines. The long-lines would be deployed in parallel sections of four (4) long-lines for a

¹ The limited-purpose lease 622-01 and proposed tract 1 have the same dimensions, 40' x 1,178'. The limited-purpose lease acreage of 1.158 acres was corrected to 1.08 acres based on those dimensions and is used in this document.

maximum of ten (10) sections. For navigation purposes there would be 50' between the ends of each 100' section and the submerged long-lines would be moored 3' or lower beneath the surface. Each submerged long-line would hold ten (10) Aquatray units. An individual Aquatray measures 3' x 3' x 4" and a multiple of five Aquatrays stacked together comprise a column or unit. There would be a maximum of 400 Aquatray units deployed.

A maximum of 600 ADPI bays containing seed soft-shell clams would be buried in the mud sediments on the northern 1,140' of tract 2. The representative testified that no surface or suspended gear, other than the required boundary markers, would be deployed in this portion of tract 2. Up to 1,000,000 seed shellfish would also be raised on tract 2.

The moorings would be made of 3/8" galvanized chain attached to 100 pound cement moorings for the surface gear on tract 1. The submerged long-lines on tract 2 would be secured using 350-pound cement moorings and 50-pound drops spaced along the long-lines for stability. All buoys would be 12" to 16" in size and white in color with navigational information painted on them using non-offensive colors. Regarding the mooring success, the representative testified that the gear deployed on the limited-purpose lease to date has withstood the weather of two (2) hurricanes.

Work platforms for cleaning, sorting, seeding, harvest and maintenance would consist of one 14' x 7' x 2' raft plus a 14' boat or a 19' boat. He explained that an 8 horsepower 4-stroke engine would power the boats, which is a quiet type of engine. The engine does not use an oil-fuel mixture and would therefore not produce an oil-sheen on the water that may cause environmental concerns. The representative described a power washer that would be used approximately two (2) hours per day, five (5) days per week. He testified that the noise from this device would be muffled using an insulated box around the engine such that it would sound like an electric lawnmower. A saline solution, like that used to salt herring, would be used to clean fouling organisms that grow on the ADPI bags and gear. The saline solution would be held in a container such as a child's swimming pool on the raft.

In the future a 12' x 8' x 2' raft called a floating up-weller system (FLUPSY) would be deployed to raise larval shellfish (spat) to the seed shellfish size, or approximately to over ¼", to improve survival rates.

General activities on the proposed lease would take place on tract 1 during the months of April through November and year round on tract 2. Harvesting would occur approximately three (3) times per week from a small boat by hand. Grading of shellfish from smaller to larger mesh bags would be ongoing work that would take place on the raft or in a boat, by hand. The representative testified that no operations would occur at night. Written permission for the use of access and the use of sanitary facilities was provided in the application by a riparian.

The representative testified that the use of the public landing facility in South Thomaston located south of the Route 73 Bridge would be minimal. He testified that no processing, grading, or packing of shellfish would take place at the landing. He would use the landing to launch boats and to transfer approximately eight (8) bushels of shellfish per week, reared on the proposed lease, at peak production. He explained that he was pursuing negotiations to use a private facility instead.

According to the application the water depths of tract 1 range from approximately 4' at mean low water (MLW) to 10' at mean high water (MHW). Water depths on tract 2 were deeper, ranging from 9' at MLW to 12' at MHW. The direction of the tidal currents follow the direction of the shoreline with maximum speeds of two (2) knots near the surface and bottom on tract 1 and increasing surface speeds to five (5) knots on tract 2. The overall bottom sediments were soft with some rock outcropping on tract 2. Benthic fauna listed in the application on tract 1 included soft-shell clams and barnacles (rare), periwinkles and sponges (common) and green crabs were considered very abundant. Minnows and eels were also common. Local flora consisted of common rockweed. The local flora and fauna observed in tract 2 was similar with the addition of rare observation of marine worms, sea squirts and lobsters, plus seasonally occurring striped bass.

The representative requested that jet skies be prohibited within the proposed lease boundaries. He also requested that no clam harvesting or commercial diving for harvesting purposes be allowed. The representative stated that recreational fishing would be allowed and that he would be willing to work with recreational fishing organizations to insure minimal impact.

In the representative's opinion, based on his observations since 1997 and the time that he has operated a limited-purpose lease in the area, navigation observations have been limited to canoes, kayaks and to two persons who use skiffs to recreational lobster fish. No commercial fishing of any type has been observed.

A letter written by the local Marine Patrol Office (MPO) was included in the application. According to the MPO there is recreational lobster fishing consisting of approximately 10 traps, some navigation by canoeists, seasonal striped bass fishing primarily at the bridge area and in portions of the Weskeag River beyond the proposed lease site, bird watching and duck hunting occur in season.

All larval or seed shellfish would be obtained from Maine hatchery sources such as Pemaquid Oyster Company in Waldoboro, Marshall Point Sea Farms in Port Clyde, Spinney Creek Shellfish Company in Eliot or the Beals Island Hatchery in Beals.

The representative testified that in his opinion many of the concerns expressed to him regarding visual impacts have been addressed by making changes in the application, primarily withdrawing tract 3 and changing to the use of submerged gear on tract 2. In his opinion the use of 20' and 50' spacings, between the systems of gear on tracts 1 and 2 respectively would allow for the least amount of interference to navigation, with the exception of jet skies.

Regarding concerns about general ecological impacts of raising oysters and clams, the impact on the food chain and the potential for a phytoplankton population crash, the representative stated that he was unable to provide quantifiable numbers on the described potential impacts. He explained that clam seed, by way of example, occurs naturally in tremendous volumes. Ninety percent of clam spat dies naturally from predation. He also explained that the scale of the proposed lease, which would produce a maximum of 1,250

bushels of shellfish per year was tiny compared to the Spanish mussel raft culture industry the proposed lease was compared to, which has caused crashes in the Spanish phytoplankton population. He testified that the volume of shellfish to be raised would be miniscule by comparison to existing natural shellfish populations and would therefore have little impact on the local food chain and ecology.

A biologist, employed by the Department, testified about the statutorily required site review that he and his assistant conducted November 15, 1999. The Department report included the following criteria: a SCUBA diver survey of the local flora and fauna and bottom composition; tidal information proximity; measurements of the proposed lease to the shore and to other leases; plus observations and documentation of local fisheries. Exhibit 3.

The biologist testified that he took an underwater video that spanned the length of tract 2. The bottom sediments were described as soft with occasional rocks and pieces of old wood. The tidal range was estimated as approximately 3' with an estimated 2' to 3' depth at MLW on tract 2. Due to the swift currents and shallow depths, temperature and salinity measurements were not taken. Local flora and fauna included an abundance of brown Benthic diatoms, a red algae-brushing red weed, periwinkles, and a green-algae sea lettuce; a common abundance of kelp, green crabs, palmate sponge, rockweed and sand shrimp; and an occasional observation was made of blue mussels, rock crabs and the common starfish. According to the biologist's report eelgrass was not observed or very scarce in the areas of proposed tracts 1 and 2.

On November 15, 1999 no observations were made or expected of fishing activity and according to the biologist's report would not be expected due to the shallow depths. The one exception would be an occasional recreational striped-bass fisher in season.

According to the biologist's report the nearest distance to shore would be approximately 344' due east from the proposed southeast corner of tract 1 and approximately 42' due east from the proposed northeast corner of tract 2. No moorings were observed within or near the proposed lease. According to the biologist's report the proposed lease should not interfere with navigation in the area due to the low clearance under the Route 73 Bridge and shallow water

depths. The area of tract 1 was described as likely to have ice in the winter and tract 2 would have ice periodically. To verify observations and assumptions regarding ice, navigation and moorings, the biologist contacted the local shellfish warden, familiar with the area, as the Town of South Thomaston does not employ a harbormaster. The shellfish warden confirmed that the area does ice over but is not usually solid due to the strong currents. Navigation is limited to small skiffs and recreational boats such as canoes and in his opinion unlikely to have navigation problems. The shellfish warden indicated that he knew of two (2) float moorings for storing lobster traps in the upper Weskeag River and he confirmed that two (2) lobster fishermen fished the area.

The biologist testified that the proposed lease is located within an area classified by the Department as open for the harvest of shellfish.

In response to questions regarding the growing of shellfish and its impact on seals the biologist explained that seals are not shellfish eaters, that they eat finfish.

The biologist addressed questions on the impact to the local plankton population, the food chain, and impact of reseeding. In his opinion the exact carrying capacity of the area is unknown. However, based on his 15 years of experience the proposed lease would not approach the carrying capacity of the area or impact the amount of food available in the wild. He would not expect to see large numbers of shellfish spawn reseed in the wild from the proposed lease and “take-over” the area. The biologist testified that if reseeding occurs off the proposed lease it would be “fair-game” as food for animals such as river otters or humans.

According to the biologist’s report the Department of Inland Fisheries and Wildlife provided a comment that indicated a future Army Corp of Engineers and US Fish and Wildlife project to remove restrictions affecting tidal flow upstream in the salt marsh area of the upper Weskeag River. The concern was that if the proposed lease was granted that it would not be allowed to have any basis to hinder the tidal salt marsh restoration project.

An intervenor who is a riparian provided testimony opposed to the proposed lease. She expressed concerns regarding how the shellfish proposed to be raised would impact local

populations of oysters, phytoplankton, the food chain and general ecology. In her opinion research on the ecological impact of shellfish aquaculture needs to take place prior to the granting of the proposed lease. She expressed concern regarding the proximity of the proposed lease on shore bird habitats, regulated by the Department of Inland Fisheries and Wildlife. She expressed concern that the proposed lease had not been reviewed for impacts to or compatibility with fisheries under state, federal, and multi-state fisheries management plans during the past, present, and future. Exhibit 4

Two opposing intervenors, who are riparian owners, provided testimony in support of the proposed lease as revised with the withdrawal of tract 3 near the bridge. Two supporting intervenors provided testimony in favor of the proposed lease and spoke highly of the representative's integrity and character. A riparian intervenor with extensive knowledge and experience in the lobster industry, and recognized representative for the industry, testified that based on his experience and knowledge, the proposed activities would not impact larval lobster ecology or commercial fishing activities. He also testified that he actively fishes striped bass with his children in the area and has done so around the existing limited-purposed lease without any problems.

The supporting riparian intervenor, who provided written permission for access, testified that the representative's activities to date on the limited-purpose lease have been unobtrusive. In his opinion the proposed lease would not impact his property investments. He expressed concern however that no other leases should be allowed within the area.

A riparian owner testified that, in his professional opinion based on his experience in the insurance business of risk management, the location of the proposed lease would pose a liability to the Town's ambulance service and public safety responsibilities. He stated that the limited access to the area due to the low clearance under the bridge located south of the proposed lease that the Town could not easily respond, particularly by boat, to an accident at the proposed lease. The riparian also wrote a letter prior to the hearing expressing concern that the proposed lease would reduce his property value.

The First Selectman from the Town of South Thomaston, and intervenor, testified that regarding volunteer services the Good Samaritan act applies and that this is a daily issue. In her opinion as the Town's representative the proposed lease would not be considered a liability to the Town's safety services. She suggested that the employees of the propose lease consider the option of wearing life jackets.

A locally recognized aquaculture consultant with many years of experience working in the Maine aquaculture industry, government, and education systems, provided testimony on the ecological concerns. He explained by way of example, that in the Damariscotta River there have been few, very small, areas of European oysters established in the wild by "escapes" from the many aquaculture leases located there. He testified that the fears of shellfish "taking-over" an area are not realized in the real world. Regarding American oysters the nearest wild American oyster populations are located in Newcastle and in the Sheepscot, Marsh River area. There is evidence of a population at one time in the Medomak area, which following glaciation, left no adults to spawn, therefore they did not return there.

A local aquaculture educator, hatchery/lease owner and long-term shellfish farmer provided supporting testimony. Based on 16 years of farming in the Damariscotta he stated that he had never experienced interactions with wildlife, such as deer described in the record, had not had any bird mortalities and had positive experiences with seal pups climbing on their floating shellfish trays to sun themselves.

He explained that the natural range of the American oyster is from north of Prince Edward Island, Nova Scotia, Canada to Venezuela in South American and therefore is not considered a non-indigenous species. Regarding the impact to the ecological food chain and phytoplankton population the impact of the proposed shellfish lease would not be measurable compared to the whole river ecosystem. He stated that it might be possible to detect a decrease in phytoplankton within a few feet of a tray filled with shellfish; otherwise any decrease in the phytoplankton would be undetectable. The educator explained that he was familiar with the phytoplankton population crash experienced in Spain. He testified that the Spanish based aquaculture referred to is a very

large intensive mussel raft culture industry. In his opinion the proposed lease is infinitesimal by comparison and that ecological prediction models, developed for the experience in Spain for example, are not universal in their application such as to the proposed lease.

A representative from the Rockland based Island Institute testified in support of the proposed lease and spoke highly of the caliber and integrity of the representative. In his opinion the operation would contribute positively to the local economy. He testified that based on local ecological studies in the Penobscot Bay region the proposed lease area has the capacity and therefore ability to support many organisms including the proposed shellfish lease.

Findings of Fact

The proposed lease is located in the northern portion of the Weskeag River in shallow waters, approximately 4' at MLW on tract 1 and 9' at MLW tract 2. The northeast corner of tract 2 would be located within approximately 42' of the eastern shore which is the riparian land owned by Ronald and Katherine Frontin. Mr. Frontin provided written permission and confirming testimony for access to the proposed lease and use of sanitary facilities. The width of tract 1 is 40' and tract 2, 100'. The range in distance to shore from the corners of tracts 1 and 2, other than the 42' distance to the Frontin property, was estimated between 274' to 591'. Based on the evidence and testimony that written permission for access was obtained from the riparian whose property would be the closest in proximity to the proposed lease boundary, and that there is adequate room for other riparian's to access their shore, I find that the lease will not unreasonably interfere with the ingress and egress of riparian owners.

The proposed lease is located in the upper or northern reach of the Weskeag River, which is bounded at its southern end by a bridge on Route 73. The low-clearance of the bridge restricts navigation access during the higher tidal portion of the tide; therefore, most vessels using the area were described as either small skiffs or recreational boats such as canoes or kayaks. This was confirmed by the written opinions of the Department's biologist based on visits to the area September 1, 1998 and November 15, 1999 and by the local shellfish warden and

DMR Marine Patrol Officer who are familiar with the area. The proposed lease is not located within a marked navigation channel according to the charts and map in the evidence.

According to the testimony of the representative tract 1 would have a 20' clearance for navigation between the pairs of 60' surface long-lines; tract 2 would have 50' clearance between each system of four (4) 100' submerged long-lines. All submerged gear would be placed at 3' or more beneath the surface. All surface and submerged gear would be arranged in narrow, straight configurations to minimize impact to navigation. The representative requested that navigation be allowed on the open areas of the proposed lease with the exception of jet skies. Given the confirmations by credible professionals, knowledgeable with the area, that the area has very limited small boat traffic; the use of spacing and submerged gear to minimize navigation impacts; and that the request to prohibit jet skies is not considered unreasonable given that there are other areas available in the Weskeag River to jet ski; I find that the lease will not unreasonably interfere with navigation in the area with the condition to prohibit the use of jet skies within the lease boundaries.

The one existing aquaculture lease in the area is the 1.08-acre limited-purpose lease, which is tract 1 of the proposed standard lease, held by the applicant. There is limited recreational use of the area and no commercial fishing. The recreational uses include two recreational lobster fishers, seasonal striped bass fishing and seasonal duck hunting north of the proposed lease. This information was confirmed by credible testimony of a riparian and information in the record from the local MPO and shellfish warden. The representative requested that clam harvesting and commercial diving for harvesting purposes be prohibited within the proposed lease to provide protection from poachers. Based on the evidence that there is no commercial fishing in the area, limited recreational activities take place and there are no aquaculture leases other than the lease held by the applicant incorporated in the proposed lease, I find that the lease, with conditions to prohibit clam harvesting and commercial diving for harvesting purposes, will not unreasonably interfere with fishing, aquaculture leases or other uses of the area.

The proposed activities include the rearing of indigenous American oyster, soft-shell and hard-shell clams using suspended and bottom culture. Soft-shell clams may be planted freely depending upon the feasibility and level of predation encountered. All grading, cleaning and harvesting would be done by hand. Testimony from credible witnesses recognized as having extensive education and experience in shellfish aquaculture provided their opinions that the small scale of the proposed lease and nature of the proposed activities would not cause a negative impact to the local ecology. Regarding concerns that the proposed lease must be compatible with state, federal and multi-state habitat regulations or fisheries management plans; the proposed lease application was provided to all agencies, state and federal, with regulatory authority over aquaculture for review. One response was received from the Department of Inland Fisheries and Wildlife, whose concerns were described in the record regarding a separate tidal enhancement project, upstream from the proposed lease and on eel grass which was described as not present or very scarce on the proposed lease according to the Department's biologist's report. Based on the evidence and testimony, I find that the proposed activities will not unreasonably interfere with the ability of the site and surrounding areas to support existing significant flora and fauna.

According to the evidence only indigenous shellfish stocks of American oysters, soft-shell and hard-shell clams would be obtained from hatcheries located within the State of Maine. Based on this evidence, I find that there is an available source of American oysters, soft-shell, and hard-shell clams.

A riparian owner has provided written permission to the applicant for the purpose of using his property to access the proposed lease site. The representative testified that the South Thomaston public landing would be used for launching and loading workboats and the transfer of small quantities of harvested shellfish from the proposed lease, approximately 8 bushels per week at peak production. He testified that no processing of shellfish products would take place at the South Thomaston public landing near the Route 73 Bridge. Based on this evidence, testimony, plus the maps and charts in the record, I find that the proposed lease site activities

will not unreasonably interfere with public use or enjoyment and that the proposed lease site is not located within 1,000 feet of any municipally, state or federally owned beaches, parks, or dock facilities.

Conclusions of Law

Based on the above findings, I conclude that:

1. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner;
2. The aquaculture activities proposed for this site will not unreasonably interfere with navigation;
3. The aquaculture lease activities proposed for this site will not unreasonably interfere with fishing or other uses of the area, taking into consideration the number and density of aquaculture leases in the area;
4. The aquaculture lease activities proposed for this site will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna;
5. The applicant has demonstrated that there is an available source of American oysters, hard-shell clams and soft-shell clams; and
6. The aquaculture lease activities proposed for this site will not unreasonably interfere with public use or enjoyment within 1,000 feet of municipally, state or federally owned beaches, parks, or docking facilities.

The evidence in the record supports a finding that the proposed aquaculture activities meet the requirements for the granting of an aquaculture lease set forth in 12 M.R.S.A. §6072.

Decision

Based on the foregoing, the Commissioner grants the requested lease of 7.14 acres, (tract 1 - 1.08, tract 2 - 6.06), to the applicant for a period of ten (10) years from the date of this decision, for the purposes of cultivating American oysters, (Crassostrea virginica), soft-shell clams, (Mya arenaria), and hard-shell clams, (Mercenaria mercenaria), using suspended and bottom culture techniques as described in the record. The applicant shall pay the State of Maine rent in the amount of \$50 per acre per year. The applicant shall post a bond or establish an

escrow account in the amount of \$5,000, conditioned upon its performance of the obligations contained in the aquaculture lease documents and all applicable statutes and regulations.

Conditions to be Imposed on Lease

The Commissioner may establish conditions that govern the use of the lease area and impose limitations on aquaculture activities. Conditions are designed to encourage the greatest multiple, compatible uses of the lease area, while preserving the exclusive rights of the lessee to the extent necessary to carry out the purposes of the aquaculture law.

The following conditions are placed on this lease:

1. no jet skis are allowed within the lease boundaries;
2. navigation by water craft other than jet skies is allowed in the open areas of the lease;
3. no clam harvesting or diving for harvesting purposes is allowed; and
4. the lease area shall be marked in accordance with U.S. Coast Guard and Department of Marine Resources regulations Chapter 2.80.

The Commissioner may commence revocation procedures if he determines that substantial aquaculture has not been conducted within the preceding year or that the lease activities are substantially injurious to marine organisms. If any of the conditions or requirements imposed in this decision, in the lease, or in the law are not being observed, the Commissioner may revoke the aquaculture lease.

Dated: _____

George D. Lapointe (Commissioner)
Department of Marine Resources